

# The Transdisciplinary Model of Evaluation

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The transdisciplinary view, or model, of evaluation requires an understanding of how and why evaluation developed from a practice to a highly skilled, professional practice to a field-specific discipline, and finally to an autonomous discipline and transdiscipline, much like ethics, statistics, and measurement (Scriven, 2003).<sup>2</sup> This understanding becomes known from the transdisciplinary model's three

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<sup>1</sup> This short paper is an excerpt from Chris L. S. Coryn's forthcoming doctoral dissertation, tentatively titled *Evaluation of Researchers and Their Research: Toward Making the Implicit Explicit*.

<sup>2</sup> A transdiscipline is one which is based on a distinction from primary disciplines, for instance, the conventional academic disciplines, and a class of disciplines which provides some set of tools, methods, and/or approaches for use by the primary disciplines. Transdisciplines include, among others, statistics, measurement, logic, and evaluation. "Logic, with its applied fields of the logic of the social sciences and so on, is an extremely general transdiscipline, but evaluation is probably the most general (unlike logic, it precedes language); both are much more general than measurement or statistics" (Scriven, 1993, p. 9).

primary characteristics that make it a transdiscipline, which are: epistemological; political; and disciplinary (Scriven, 1993).

The epistemological characteristic of the transdisciplinary model is one drawn from an objectivist view of evaluation. This is a paradoxical notion, and despite the various meanings or definitions assigned to the concept by various disciplines, schools of thought, or individuals, there is ultimately a body of knowledge representative of a single reality. Objectivity is also considered as the compatibility of objective propositions distinct and independent of subjective propositional attitudes or acts.<sup>3</sup> The nature of a proposition is that it must be true or false, and its many forms include the axioms and formulas of the sciences and mathematics, as well as the rules and processes of logic. Therefore, the objectivist view of evaluation asserts that evaluative claims of merit, worth, and significance are possible in principle and practice, based on logic and reason, and if properly understood, objectivity.

The political characteristic of the transdisciplinary model is that it is characterized by a consumer-oriented view.<sup>4</sup> That is, the rationale or justification of a program, policy, or product is that they exist to serve the needs of consumers. In the transdisciplinary view, evaluation affords those consumers “the same primacy in evaluation” and therefore the main function of evaluation is “the determination of the merit or worth [or value]...[of a program, policy, or product]...in terms of how

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<sup>3</sup> Moreover, objectivist evaluations are premised on “the theory that moral good is objective and independent of personal or human feelings” (Stufflebeam, 2005, p. 62).

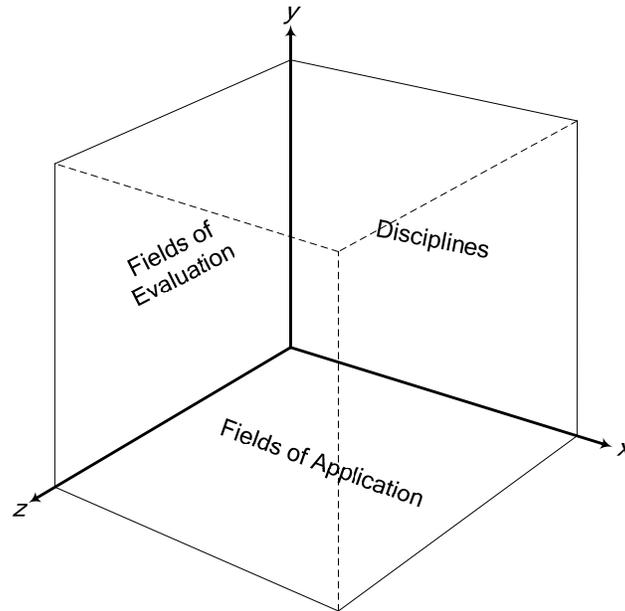
<sup>4</sup> This particular view of evaluation is often referred to as consumer-oriented, consumer-based, or needs-based evaluation; although these differ slightly in their meaning.

effectively and efficiently they are serving those affected, particularly those receiving, or who should be receiving, the services provided and those who pay for [them]” (Scriven, 1993, p. 9). Although the consumer-oriented view is grounded in a deeply reasoned view of ethics and the common good, Stufflebeam (2001), in his taxonomy and analysis of evaluation models and approaches, describes consumer-oriented evaluation as “extremely difficult” and that it requires “a highly competent and credible expert” (pp. 59-60).

The disciplinary characteristic of the transdisciplinary model, similar to statistics, ethics, and logic, is that evaluation is a discipline that can be characterized by its study and improvement of certain tools (e.g., methods) for application between and within other disciplines (Scriven, 1991, 2005). The disciplinary characteristic of the transdisciplinary view of evaluation can be separated into three component parts: disciplines (e.g., arts, humanities, social sciences, technology, natural sciences); fields of evaluation (i.e., product, performance, personnel, program, policy, proposal, and portfolio); and fields of application (e.g., education, health, human services).

Graphically, the disciplinary elements of the transdisciplinary model can be represented by spatial planes in three dimensions, with each plane representing the three disciplinary components. The rear plane on the  $x$  and  $y$  axes represents *disciplines*, the vertical plane on the  $y$  and  $z$  axes represents *fields of evaluation*, and the horizontal plane on the  $x$  and  $z$  axes represents *fields of application*, as illustrated in Figure 1. Any particular evaluation can then be located as a point or volume (e.g., a cube) in this three-dimensional space.

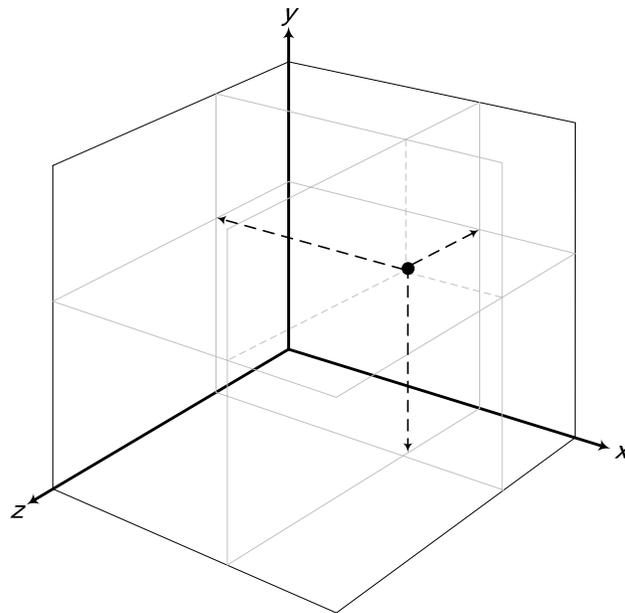
Figure 1  
*The Transdisciplinary Model*



Conceptually, the transdisciplinary model is a useful tool in the evaluation of researchers and their research, for instance, as well as for other types of evaluands or evaluatees. If we are, say, evaluating a molecular biologist’s research, each of the elements of the transdisciplinary model can be spatially mapped, such as illustrated in Figure 2, where the molecular biologist’s research would be classified as a natural science discipline ( $x, y$ ), evaluated as a product ( $y, z$ ), and which is in the applied field of health ( $x, z$ ), for example. This is by no means a sophisticated or exact procedure, such as the plotting of points using a three-dimensional Cartesian coordinate system, but rather serves as a practical, emblematic representation of the nature of the evaluand or evaluatee and the evaluation thereof.

Figure 2

*Spatial Map of a Discipline, Field of Evaluation, and Field of Application within the Transdisciplinary Model*

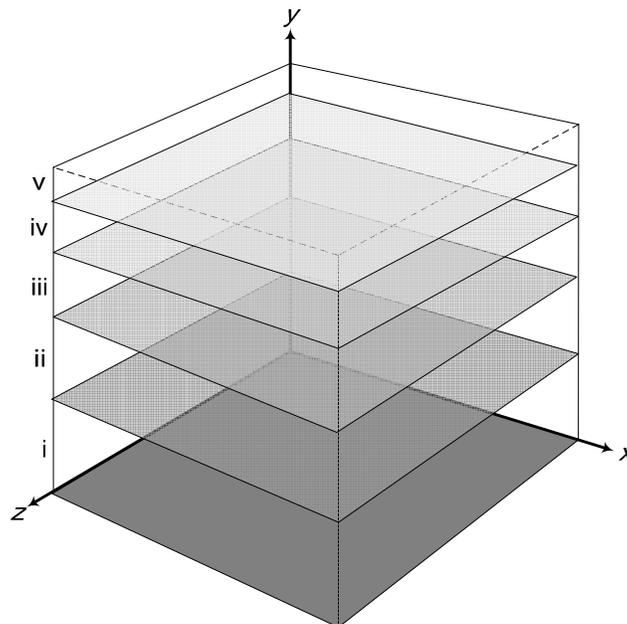


Additionally, using Scriven’s analogy of the “House of Evaluation” from *The Country of the Mind* (1991, p. 13), the reasoning and logic of the transdisciplinary model can be extended somewhat further, and the placement of the disciplinary elements of the model (i.e., disciplines, fields of evaluation, and fields of application) clarified and their interrelatedness revealed by expansion of the allegory to construct the framework for the house of evaluation, situated somewhere near logic and ethics in the geographical landscape of the “country of the mind.” As illustrated in Figure 3, the metaphorical floors of the house include, but are not limited to: (i) the ground floor (i.e., fields of application plane on the  $x$  and  $z$  axes), which represents applied work, above which are floors representing, or dedicated to (ii) the development of instruments; (iii) methods; and finally (iv)

theory on the top floor; with (v) metatheory hidden in the recesses of the attic.<sup>5</sup> Moving upward, toward the floors occupied by theory and metatheory, each floor gets increasingly smaller.

Figure 3

*The Transdisciplinary Model and the House of Evaluation*




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<sup>5</sup> Evaluation-specific theories are often local theories, about a particular field or subfield of evaluation, for instance; that is, theories about program, performance, or personnel evaluation. However, general theories are, for the most part, lacking. Evaluation models and approaches, for instance, empowerment (Fetterman, 2001), utilization-focused (Patton, 1997), the CIPP model (Stufflebeam, 2004), and so on, do not qualify as theories in the true sense; these are normally “metaphors for, conceptualizations of, or procedural paradigms for evaluation” and “the latter [local theories] come closest to being theories in the usual sense, the others [models and approaches] are nearer to metatheories” (Scriven, 1991, p. 156).

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<http://evaluation.wmich.edu/jmde/>

*Ideas to Consider*

CA: Sage.